DOCUMENT RESUME

ED 446 602 HE 033 443

AUTHOR Goldman, Charles A.; Massy, William F.
TITLE The PhD Factory: Training and Employment of Science and Engineering Doctorates in the United States.
SPONS AGENCY Alfred P. Sloan Foundation, New York, NY.; Rand Corp., Santa Monica, CA.
ISBN ISBN-1-882982-36-3
PUB DATE 2001-00-00
NOTE 187p.
AVAILABLE FROM Anker Publishing Company, Inc., 176 Ballville Road, P.O. Box 249, Bolton, MA 01740-0249 ($34.95). Tel: 978-779-6190; Web site: www.ankerpub.com.
PUB TYPE Books (010) -- Reports - Evaluative (142)
EDRS PRICE Document Not Available from EDRS.
DESCRIPTORS Doctoral Degrees; *Doctoral Programs; Educational Attainment; *Employment Patterns; *Engineering; Engineers; Futures (of Society); Graduate Study; Higher Education; Sciences; *Scientists; *Supply and Demand; *Training

ABSTRACT

Based on new research exploring the training and employment of science and engineering PhDs in the United States, this book predicts that with constant future resources and with constant domestic employment outside academe, academic departments will produce an average 20% to 24% annual excess of new Ph.D.s over employment opportunities. The models show that expanding university research and education will make the imbalance worse over the long run. These arguments are advanced in these chapters: (1) "The National Investment in PhDs"; (2) "The System of Training and Employing PhDs"; (3) "The Employment Gap for PhD Scientists and Engineers"; (4) "Production of Teaching and Research in Departments"; (5) "Student Attainment of the PhD"; (6) "Faculty Career Patterns"; (7) "Conclusions about the Academic System"; (8) "Modeling the Employment Gap for PhD Scientists and Engineers"; (9) "Modeling Production of Teaching and Research in Departments"; (10) "Modeling Student Attainment of the PhD"; (11) "Modeling Faculty Career Patterns"; and (12) "Future Directions in Research." An appendix discusses the treatment of departments in the modeling. (Contains 35 tables, 27 figures, and 36 references.) (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.